the claims. Figure 1 is amended in the Letter to the Examiner Requesting Approval of Changes to the Drawings filed concurrently herewith. Support for the amendments to Figure 1 is found in the specification, as filed, on pages 10-12. In addition, a Letter Submitting Drawings, presenting a clean copy of Figure 1, is also filed concurrently herewith. Withdrawal of the objections to the drawings is respectfully requested.

In the present invention, a structured document has a document instance and a document type definition. The document type definition includes (i) a plurality of element declarations which respectively define a plurality of type of logical structures for the document instance, and (ii) a plurality of entity declarations which respectively designate the defined logical structures.

Sato et al. discloses a DTD (Document Type Definition) including a plurality of elements which have the same type of structure ("#PCDATA") as each other. Sato et al. does not disclose or suggest the document type definition of the present invention, which includes a plurality of element declarations which respectively define a plurality of types of logical structures for the document instance, and a plurality of entity declarations which respectively designate the defined logical structures.

Each of independent claims 1 and 13 of the present application recites (using the recitation of claim 1 as an example) "preparing a document instance which presents a contents of said structured document, and a document type definition which defines a document structure of said structured document, including a plurality of element declarations which respectively define a plurality of types of logical structures and for said document instance, a plurality of entity declarations which respectively designate said defined logical structures".

Moreover, independent claim 9 of the present application recites "the data file at least having a region in which the document type definition which defines a document structure of said structured document is recorded and another region in which a document instance which presents contents of the document are recorded" and "a plurality of element declarations which respectively define a plurality of types of logical structures for said document instance, and a plurality of entity declarations which respectively designate said defined logical structures being described in said region in which the document type definition is recorded".

Claims 2-8 and 10-12 recite additional, patentably distinguishing features of their own.

For example, claim 2/1 recites "for each of the plurality of entity declarations, control information indicating whether the entity declaration is valid or invalid is additionally described".

Withdrawal of the foregoing rejections is respectfully requested.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.
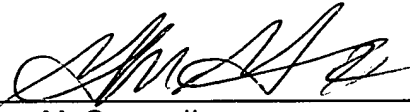
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _May 13, 2002_   By: _____

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please AMEND the following claims:

1. (ONCE AMENDED) A structured document [preparation] creation method for [preparing] creating a structured document in accordance with a predetermined document type definition, comprising [the steps of]:

[describing, into the] preparing a document instance which presents a contents of said structured document, and a document type definition[,] which defines a document structure of said structured document, including a plurality of element declarations which respectively define a plurality of [different] types of logical structures and [also] for said document instance, a plurality of entity declarations which respectively designate [the] said defined [different] logical structures;

validating one of [the described] said entity declarations of said document type definition to validate a corresponding one of [the described] said element declarations of said document type definition; and

[preparing a] creating said structured document having the contents of said document instance in said one logical structure that is defined by said corresponding validated element declaration.

2. (ONCE AMENDED) A structured document [preparation] creation method as claimed in claim 1, wherein, for each of the plurality of entity declarations, control information indicating whether the entity declaration is valid or invalid is additionally described.

3. (ONCE AMENDED) A structured document [preparation] creation method as claimed in claim 1, wherein the plurality of different logical structures include a logical structure form layout and a table form layout.

4. (ONCE AMENDED) A structured document [preparation] creation method as claimed in claim 2, wherein the plurality of different logical structures include a logical structure form layout and a table form layout.

5. (ONCE AMENDED) A structured document [preparation] creation method as claimed in claim 1, wherein the structured document is a Standard Generalized Markup Language document and the document type definition is a Document Type Definition which defines a document structure of the Standard Generalized Markup Language.

6. (ONCE AMENDED) A structured document [preparation] creation method as claimed in claim 2, wherein the structured document is a Standard Generalized Markup Language document and the document type definition is a Document Type Definition which defines a document structure of the Standard Generalized Markup Language.

7. (ONCE AMENDED) A structured document [preparation] creation method as claimed in claim 3, wherein the structured document is a Standard Generalized Markup Language document and the document type definition is a Document Type Definition which defines a document structure of the Standard Generalized Markup Language.

8. (ONCE AMENDED) A structured document [preparation] creation method as claimed in claim 4, wherein the structured document is a Standard Generalized Markup Language document and the document type definition is a Document Type Definition which defines a document structure of the Standard Generalized Markup Language.

9. (ONCE AMENDED) A computer-readable recording medium on which a structured document [prepared] created in accordance with a predetermined document type definition is recorded;

the structured document being recorded in a data file formed on said recording medium;

the data file at least having a region in which the document type definition which defines a document structure of said structured document is recorded and another region in which a document instance which presents contents of the document are recorded;

a plurality of element declarations which respectively define a plurality [of different] of types of logical structures for said document instance, and a plurality of entity declarations which respectively designate [the] said defined [different] logical structures being described in [the] said region in which the document type definition is recorded;

for each of the plurality of entity declarations, information which indicates whether the

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entity declaration is valid or invalid being additionally described.

10. (AS UNAMENDED) A computer-readable recording medium as claimed in claim 9, wherein the plurality of different logical structures include a logical structure form layout and a table form layout.

11. (AS UNAMENDED) A computer-readable recording medium as claimed in claim 9, wherein the structured document is a Standard Generalized Markup Language document and the document type definition is a Document Type Definition which defines a document structure of the Standard Generalized Markup Language.

12. (AS UNAMENDED) A computer-readable recording medium as claimed in claim 10, wherein the structured document is a Standard Generalized Markup Language document and the document type definition is a Document Type Definition which defines a document structure of the Standard Generalized Markup Language.

Please ADD the following new claim 13:

13. (NEW) A computer-readable medium storing a program which, en executed by a computer, causes the computer to execute functions of a structured document creation method for creating a structured document in accordance with a predetermined document type definition, comprising:

preparing a document instance which presents a contents of said structured document, and a document type definition which defines a document structure of said structured document, including a plurality of element declarations which respectively define a plurality of types of logical structures and for said document instance, a plurality of entity declarations which respectively designate said defined logical structures;

validating one of said entity declarations of said document type definition to validate a corresponding one of said element declarations of said document type definition; and

creating said structured document having the contents of said document instance in said one logical structure that is defined by said corresponding validated element declaration.

FIG.1

REGION IN WHICH DOCUMENT TYPE DEFINITION IS RECORDED

REGION IN WHICH DOCUMENT CONTENTS ARE RECORDED

ENTITY DECLARATION EN1 (CONTROL INFORMATION I1)

⋮

ENTITY DECLARATION ENn (CONTROL INFORMATION In)

ELEMENT DECLARATION EL1

⋮

ELEMENT DECLARATION ELn

20 : DTD

30 : DOCUMENT INSTANCE